

  
IN THE CLAIMS  
Please amend the claims as shown below. This Listing of the Claims replaces all previous versions and listings thereof.

1. (Currently Amended) A method for automatically generating a network replication topology for use by a directory service in replicating a directory, comprising the computer-implemented steps of:  
reading a plurality of router configuration files; [[and]]  
generating the network replication topology representing one or more sites and one or more site links based on information in the plurality of router configuration files[[.]]; and  
reading preprocessing information, the preprocessing information including override information for nullifying the information associated with a same one or more sites or site links from the plurality of router configuration files, wherein the network topology is generated based additionally on the override information.

2. (Original) The method of claim 1, wherein the information in the plurality of router configuration files includes router interface information and the step of generating the network topology is performed based on the router interface information.

3. (Previously Presented) The method of claim 2, wherein the step of generating the network topology comprises:  
determining at least one site by identifying a sub-network on a Local Area Network (LAN) interface; and  
generating a site reference for each site.

4. (Previously Presented) The method of claim 2, wherein the step of generating the network topology comprises:  
determining at least one site link by identifying a Wide Area Network (WAN) interface; and  
generating a site link reference for each site link.

5. (Previously Presented) The method of claim 1, wherein the step of generating the network topology comprises:  
determining at least one site by identifying a router interface with a bandwidth exceeding a predefined threshold value; and  
generating a site reference for each site.

6. (Previously Presented) The method of claim 1, wherein the step of generating the network topology comprises:  
determining at least one site link by identifying a router interface with a bandwidth not exceeding a predefined threshold value; and  
generating a site link reference for each site link.

7. (Previously Presented) The method of claim 1, wherein the step of generating the network topology comprises:  
determining at least one site link by identifying a router interface with a packet round-trip-time exceeding a predefined threshold value; and  
generating a site link reference for each site link.

8. (Cancelled)

9. (Original) The method of claim 1, wherein the step of reading a plurality of router configuration files includes reading from a network management system.

10. (Original) The method of claim 1, wherein the step of reading a plurality of router configuration files includes reading from a router query result.

11. (Original) The method of claim 1, further comprising the computer-implemented steps of:  
storing the replication topology in a database; and  
copying the replication topology from the database to the directory service.

12. (Original) The method of claim 11, wherein the directory service is Active Directory and the one or more site links is an Active Directory site link.

13. (Original) The method of claim 11, wherein the directory service is Active Directory and the one or more sites is an Active Directory site.

14. (Currently Amended) A computer-readable medium carrying one or more sequences of instructions for automatically generating a network topology for a directory service, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform steps of:  
reading router interface information from a plurality of router configuration files;  
generating the network topology representing one or more network sites and one or more network site links based on the router interface information[.]; and  
reading preprocessing information, the preprocessing information including override information for nullifying the information associated with a same one or more sites or site links from the plurality of router configuration files, wherein the network topology is generated based additionally on the override information.

15. (Original) The computer-readable medium of claim 14 wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the step of generating the network topology by causing the one or more processors to perform a step of:  
generating at least one site reference by identifying a sub-network on a Local Area Network (LAN) interface.

16. (Original) The computer-readable medium of claim 14 wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the step of generating the network topology by causing the one or more processors to perform steps of:  
generating at least one site link reference by identifying a Wide Area Network (WAN) interface.

17. (Original) The computer-readable medium of claim 14 wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:  
storing the replication topology in a database; and  
copying the replication topology from the database to the directory service.

18. (Original) The computer-readable medium of claim 14, wherein the directory service is Active Directory and the one or more site links is an Active Directory site link.

19. (Original) The computer-readable medium of claim 14, wherein the directory service is Active Directory and the one or more sites is an Active Directory site.

20. (Currently Amended) A computer system that automatically generates a network replication topology for use by a directory service in replicating a directory, the system comprising:  
a network interface; and  
one or more processors coupled connected to the network interface, the one or more processors configured for:  
reading router interface information from a plurality of router configuration files;  
generating a network topology representing one or more network sites and one or more network site links based on the router interface information[[.]]; and  
reading preprocessing information, the preprocessing information including override information for nullifying the information associated with a same one or more sites or site links from the plurality of router configuration files, wherein the network topology is generated based additionally on the override information.

21. (Original) The computer system of claim 20 wherein the network topology is generated for use with a directory service and the one or more processors are further configured for generating the network topology by generating one or more network site references by identifying a sub-network on a Local Area Network (LAN) interface.

22. (Original) The computer system of claim 20 wherein the network topology is generated for use with a directory service and the one or more processors are further configured for generating the network topology by generating one or more site link references by identifying a Wide Area Network (WAN) interface.

23. (Original) The computer system of claim 20 wherein the network topology is generated for use with a directory service and the one or more processors are further configured for:

storing the replication topology in a database; and  
copying the replication topology from the database to the directory service.

24. (Currently Amended) An apparatus that automatically generates a network topology for use in replicating a directory associated with a directory service, the apparatus comprising:  
means for reading a plurality of router configuration files; and  
means for generating the network topology representing one or more sites and one or more site links based on information in the plurality of router configuration files[.]; and  
means for reading preprocessing information, the preprocessing information including  
override information for nullifying the information associated with a same one or more  
sites or site links from the plurality of router configuration files, wherein the network  
topology is generated based additionally on the override information.

25. (Original) The apparatus of claim 24, further comprising:  
means for determining at least one site by identifying a sub-network on a Local Area Network (LAN) interface.

26. (Original) The apparatus of claim 24, further comprising:  
means for determining at least one site link by identifying a Wide Area Network (WAN) interface.

27. (Original) The apparatus of claim 24, further comprising:  
means for storing the replication topology in a database; and  
means for copying the replication topology from the database to the directory service.

28. (Previously Presented) The method of Claim 1, further comprising:  
reading a list of one or more router names from a source, wherein the source is a network management system, a database, or a router query result;  
generating a router name from the router configuration file associated with each of the one or more routers;  
comparing the one or more router names from the router configuration files to the list of one or more router names from the source, and  
upon a router name from the router configuration files not being in the list of one or more router names from the source, generating an exception.

29. (Previously Presented) The method of claim 28, further comprising:  
generating a temporary site name for each router name from the router configuration file associated with each of the one or more routers; and  
associating each of the one or more site references determined from the router configuration file associated with each of the one or more routers with the temporary site name for the associated router.

30. (Previously Presented) The method of claim 29, further comprising:  
generating a partial site link for each of the one or more site link references determined from the router configuration file associated with each of the one or more routers; and  
associating each partial site link with the temporary site name for the associated router.

31. (Previously Presented) The method of claim 30, further comprising:  
generating a sub-network reference based on each of one or more “ip route” commands in the router configuration file associated with each of the one or more routers; and  
associating each sub-network reference with the temporary site name for the associated router.

32. (Cancelled)

33. (Previously Presented) The computer-readable medium of claim 32, wherein the instructions, when executed by one or more processors, cause the one or more processors to perform:

reading a list of one or more router names from a source, wherein the source is a network management system, a database, or a router query result;  
generating a router name from the router configuration file associated with each of the one or more routers;  
comparing the one or more router names from the router configuration files to the list of one or more router names from the source, and  
upon a router name from the router configuration files not being in the list of one or more router names from the source, generating an exception.

34. (Previously Presented) The computer-readable medium of claim 33, wherein the instructions, when executed by one or more processors, cause the one or more processors to perform:

generating a temporary site name for each router name from the router configuration file associated with each of the one or more routers; and  
associating each of the one or more site references determined from the router configuration file associated with each of the one or more routers with the temporary site name for the associated router.

35. (Previously Presented) The computer-readable medium of claim 34, wherein the instructions, when executed by one or more processors, cause the one or more processors to perform:

generating a partial site link for each of the one or more site link references determined from the router configuration file associated with each of the one or more routers; and  
associating each partial site link with the temporary site name for the associated router.

36. (Previously Presented) The computer-readable medium of claim 35, wherein the instructions, when executed by one or more processors, cause the one or more processors to perform:

generating a sub-network reference based on each of one or more “ip route” commands in the router configuration file associated with each of the one or more routers; and associating each sub-network reference with the temporary site name for the associated router.

37-38. (Cancelled)

39. (New) The computer system of Claim 20, wherein the one or more processors are further configured for:

determining at least one site by identifying a router interface with a bandwidth exceeding a predefined threshold value; and

generating a site reference for each site;

wherein the one or more processors generate the network topology with the at least one site and the site reference.

40. (New) The computer system as recited in Claim 20, wherein the one or more processors are further configured for:

determining at least one site link by identifying a router interface with a packet round-trip-time exceeding a predefined threshold value; and

generating a site link reference for each site link;

wherein the one or more processors generate the network topology with the at least one site and the site reference.

41. (New) The computer system as recited in Claim 20, wherein the reading a plurality of router configuration files includes at least one of reading from a network management system and reading from a router query result.

42. (New) The computer system as recited in Claim 20, wherein the directory service comprises Active Directory and at least one of:

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the one or more site links comprise an Active Directory site link; and.

the one or more sites comprise an Active Directory site.

43. (New) The computer system as recited in Claim 20, wherein the information in the plurality of router configuration files includes router interface information and the step of generating the network topology is performed based on the router interface information.